Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-8. (Cancelled).

Claim 9. (Original) Method for monitoring a traffic state in a traffic network which may incur one or more effective bottlenecks, said method comprising:

recording measured traffic data for at least one traffic parameter, including at least one of information on traffic intensity and average vehicle speed;

based on the recorded information, classifying the traffic state into one of a plurality of state phases including at least the state phases of "free traffic" and "synchronized traffic"; wherein,

when an edge fixed at an effective bottleneck of the traffic network is detected between downstream free traffic and upstream synchronized traffic, the traffic state upstream of said bottleneck is classified as conforming to a

pattern of dense traffic that is representative of the bottleneck, which pattern includes one or more different consecutive upstream regions of different state phase composition; and

an associated profile of the traffic parameters is taken into account in classifying the state phase determination.

Claim 10. (Currently Amended) The method according to Claim 9, wherein:

when an individual pattern of dense traffic arising initially at an effective bottleneck in a particular route section [[,]] reaches a next preceding effective bottleneck in an upstream direction, classifying a traffic state in this particular route section as conforming to an overarching pattern, which overarching pattern is representative of included effective bottlenecks of dense traffic which, like a respective individual pattern, includes one or more different consecutive upstream regions of different state phase composition; and

an associated profile of the traffic parameters is taken into account in classifying the traffic state phase.

Claim 11. (Currently Amended) The method according to Claim 9, wherein:

a pattern assigned to an effective bottleneck, or an [[as]] overarching pattern common [[,]] to a plurality of effective bottlenecks, of dense traffic with a time-dependent and location-dependent traffic parameter profile, is empirically determined from recorded measured traffic data and stored in a manner which can be called up.

Claim 12. (Currently Amended) The method according to Claim 11, wherein:

for a particular bottleneck, ~~it is established~~ as a function of vehicle influx, a determination is made whether the pattern comprises one of three pattern variants, being i) only a region of synchronized traffic, ii) a region of synchronized traffic and a pinch region adjoining upstream, or iii) a region of synchronized traffic, a pinch region adjoining upstream and a region of moving widespread congestion adjoining farther upstream;

associated edge positions are determined between the respective different state phases; and

each of the three pattern variants is assigned a corresponding time-dependent and location-dependent profile comprising information regarding at least one parameter selected from the group consisting of [[the]] average vehicle speed, ~~and/or the~~ traffic flow, and ~~and/or~~ the traffic density.

Claim 13. (Currently Amended) The method according to Claim 10, wherein:

for the traffic network, ~~it is established~~ as a function of vehicle flows, determinations are made regarding i) a location and ~~where and in what~~ temporal sequence in which overarching patterns ~~arise, in what~~ occur; ii) a temporal and spatial sequence in which regions of "synchronized traffic", "pinch region" and "moving widespread congestion" ~~arise and develop~~ occur in each overarching pattern; [[,]] and iii) whether overlaps of [[such]] said regions take place; and

for a particular overlap, temporal and spatial characteristics of congestion ~~points~~ regions through regions of synchronized traffic ~~and/or~~ or ~~congested synchronized traffic~~ pinch regions are predicted.

Claim 14. (Currently Amended) The method according to Claim 12, wherein [[the]] a temporal evolution is currently estimated, and predicted for

future points in time, for [[of]] at [[least]] least one traffic condition selected from the group consisting of edge positions of the regions of a respective pattern of dense traffic, edge positions of congestion ~~points~~ regions inside various overarching patterns, and occurrence of a new overarching pattern. ~~, is currently estimated and predicted for future points in time.~~

Claim 15. (Currently Amended) The method according to Claim 12, wherein travel time for respective individual or overarching patterns of dense traffic are currently estimated or predicted for future points in time.

Claim 16. (Currently Amended) The method according to Claim 12, wherein:

current vehicle influx data is detected for respective individual or overarching patterns of dense traffic;

current data indicative of positions of the edges between the pattern regions are determined; [[and]]

[[these]] the current data are used to select a best-fitting pattern profile from among stored pattern profiles; and [[,]]

[[which]] the selected pattern profile is used as a basis for predicting a future traffic state in the relevant route region.

Claim 17. (New) A method for traffic state monitoring in a traffic network in which effective bottlenecks may occur, said method comprising:

for each of a plurality of varying values of traffic influx to a particular effective bottleneck, determining a temporal/spatial profile for at least one pattern of dense traffic that is representative of the particular effective bottleneck, said profile including traffic parameters in a region upstream of the particular effective bottleneck;

storing said at least one pattern in a memory;

when a downstream edge between downstream free traffic and an upstream dense traffic phase is detected at said particular effective bottleneck, selecting a best fitting pattern from among said stored patterns, based on at least traffic influx to the particular effective bottleneck; and

predicting a temporal/spatial profile of traffic parameters for the particular effective bottleneck using traffic parameter information associated with the selected pattern.

Claim 18. (New) The method according to Claim 17, wherein said selecting of a best fitting pattern comprises:

determining position of an upstream edge of said dense traffic phase;

determining traffic influx to at least one of said upstream edge and said downstream edge; and

using determined edge position and traffic influx information as input data, selecting from the stored patterns, a pattern which best fits said input data.

Claim 19. (New) The method according to Claim 18, wherein said predicting comprises:

using determined position of said upstream edge, said selected pattern and said traffic influx information, predicting further development of said pattern.